

BEFORE
THE PUBLIC SERVICE COMMISSION OF
SOUTH CAROLINA
DOCKET NO. 89-481-C - ORDER NO. 90-330 ✓
APRIL 30, 1990

IN RE: Application of Southern Bell Telephone)	ORDER APPROVING
and Telegraph Company for Approval of)	DEPRECIATION
New VG/ELG Depreciation Rates and)	RATES AND
Amortization Schedules)	AMORTIZATION
)	SCHEDULES

This matter comes before the Public Service Commission of South Carolina (the Commission) by way of an Application filed September 5, 1989, by Southern Bell Telephone and Telegraph Company (Southern Bell) requesting approval of New VG/ELG Depreciation Rates and Amortization Schedules. The Application alleges that on July 10, 1989, representatives of Southern Bell, the Federal Communications Commission (the FCC), the Commission, and representatives of the office of the Consumer Advocate of South Carolina (the Consumer Advocate) convened to address the need of Southern Bell to revise its existing depreciation rates and amortization schedules. As a result of these meetings, Southern Bell proposed substantial changes to its rates and schedules it had filed in April, 1989 which would have resulted in increased interstate and intrastate depreciation expense of approximately \$41.6 million. According to the Company's application, the rates and schedules tentatively agreed to by the

Staff of the Commission and Southern Bell at the "three way meeting" would allow increased intrastate depreciation expense of approximately \$14.8 million based upon a January 1, 1989 investment base. The Application was filed pursuant to S.C. Code Ann., §58-9-350 (1976).

The matter was duly noticed to the public and was published in the State Register, Volume 13, Issue No. 10, dated October 27, 1989. Petitions to Intervene were filed on behalf of the Consumer Advocate, MCI Telecommunications Corporation (MCI) and South Carolina Cable Television Association (SCCTA). A hearing was commenced February 14, 1990 at 10:30 a. m. in the Commission's Hearing Room, the Honorable Caroline H. Maass, presiding. William F. Austin, Esquire, Fred A. Walters, Esquire, and Len S. Anthony, Esquire, represented Southern Bell; Mitchell M. Willoughby, Esquire, John M. S. Hoefer, Esquire, and John D. Siever, Esquire, represented SCCTA; Raymon E. Lark, Jr., Esquire, Nancy J. Vaughn, Esquire, and Elliott F. Elam, Jr., Esquire, represented the Consumer Advocate; D. Christian Goodall, Esquire, represented MCI and Marsha A. Ward, General Counsel, represented the Commission Staff.

Southern Bell presented H. Gerald Prophitt, Director-Regulatory-Capital Recovery for BellSouth Services, Inc. to testify in support of Southern Bell's proposed depreciation rates and amortization schedules. In addition, Southern Bell submitted the deposition testimony of Kurt Newber, President of the SCCTA, as an adverse witness. SCCTA presented the testimonies

of Thomas Gillett, Vice President of Business Development and Technology Transfer for Cable Television Laboratories; W. Page Montgomery, Vice President of Economics and Technology, Inc.; and Joseph P. Cresse, Special Consultant with the law firm of Messer, Vickers, Caparello, French and Madsen, P. A., in support of its position. The Commission Staff presented the testimony of James M. McDaniel, Chief, Telecommunications Department, Utilities Division, to testify in support of its recommended depreciation rates and amortization schedules.

At the commencement of the hearing, counsel for Southern Bell stipulated that regardless of the outcome of this proceeding, Southern Bell will not file for an increase in rates in its 1FR and 1FB basic service rates for a period of at least one (1) year from the date of the hearing. Southern Bell further stipulated that it would not even file a Letter of Intent to increase the 1FR and 1FB rates within a year from February 14, 1990.

Based upon the evidence in the record presented to the Commission in this matter, the Commission makes the following findings of fact and conclusions of law:

1. That the Commission has the authority to prescribe Southern Bell's intrastate depreciation rates regardless of any action taken by the FCC, pursuant to Louisiana Public Service Commission v. FCC. At the onset, it must be established that the Commission has the authority to prescribe Southern Bell's intrastate depreciation rates. S. C. Code Ann., §58-9-350 (1976) states that "[e]very telephone utility shall have the right, and

may be so required, to charge annually as an operating expense a reasonable sum for depreciation and credit it to a reserve account for such purpose...." This Code section also provides that the Commission may control or limit a telephone utility's depreciation reserve. It also states, however, that nothing in this section shall be construed to be in conflict with or in violation of the Communications Act of 1934 or any lawful order of the FCC. Prior to this depreciation request, the United States Supreme Court issued its landmark depreciation decision in 1986. In Louisiana Public Service Commission v. FCC, 476 U.S.355 (1986), the Supreme Court held that the FCC did not possess broad authority to prescribe depreciation rates for both a telephone utility's interstate and intrastate operations and could not pre-empt the states in this area. The Court stated that the right to set intrastate depreciation rates was reserved to the states by virtue of 47 USC §152(b). The Commission finds that S.C. Code Ann., §58-9-350 (1976) is not in conflict with the Communications Act of 1934 nor with any lawful order of the FCC. The Commission further finds that it has the authority to prescribe Southern Bell's intrastate depreciation rates herein.

2. That Southern Bell's estimated reserve requirement as of January 1, 1990, is 43% which results in a \$250 million reserve deficiency. This indicates to the Commission that Southern Bell's depreciation rates must be revised. Southern Bell's witness Prophitt testified to that the existing depreciation rates of the Company should be revised as requested in its September 1, 1989,

filing with the Commission, as modified by a January 26, 1990 filing (See Hearing Exhibit No. 1), for a number of reasons. Witness Prophitt explained that existing depreciation rates do not adequately correlate with the rapid rates of technological change being experienced in South Carolina, the Company's depreciation reserve is about \$250 million short of its reserve requirement, and adequate depreciation is not in the ratepayers' long-term best interest because it produces inflated rate base, inflated earning requirements, higher total revenue requirements, slower rate of plant modernization, higher operating costs and poor service from obsolete plant, and can create a competitive disadvantage with other states in attracting beneficial business and industry because of the fact that business believes in a modern telecommunications plant. Tr. Vol. I, p. 48.

3. That the depreciation rates and the recovery schedules contained in the Application filed by Southern Bell and as reflected in Hearing Exhibit No. 1 will assist Southern Bell in correcting the reserve deficiency and reflects the agreement negotiated with the Commission Staff during the three way meeting with the FCC. According to witness Prophitt, as of January 1, 1989, Southern Bell's adjusted intrastate book depreciation reserve ratio was only 30%. However, Southern Bell estimates its reserve requirements as of January 1, 1990 to be 43%, which would indicate a \$250 million reserve deficiency. Tr., Vol. I, pp. 17-18. According to witness Prophitt, these depreciation rates and recovery schedules are less than those proposed in, and

supported by, the depreciation study Southern Bell submitted to the Commission in April of 1989.

According to witness Prophitt, the depreciation rates proposed by the Company are necessary to keep South Carolina's telecommunications infrastructure on the leading edge. These were negotiated rates between the Company and the Commission Staff. While they are not what the Company originally filed, witness Prophitt considered them to be adequate to continue the rate of modernization that the Company has established in the State. Tr., Vol. I, p. 50. The Company contends that the two way agreement achieved by the Staff and the Company is conservatively supported by the Company's depreciation study. See, Hearing Exhibit No. 1. Witness Prophitt made very clear that the Company does not rely on the expectation that its network will transport video, much less that Southern Bell would some day provide cable TV programming. Tr., Vol. I, pp. 50-51. It is the Company's contention that the depreciation rates are based upon economic life estimates that are longer than those that are appropriate to a plain old telephone service (POTS) market. As testified by witness Prophitt, the proposed rates contained in the Company's September filing generate \$16 million per year less than the company originally proposed. Tr., Vol. I, p. 51.

Twenty-nine accounts were represcribed in this proceeding. Primarily, the three metallic cable accounts were the subject of dispute before the Commission. The Commission Staff and Southern Bell reached tentative agreements on all accounts.

Although the three accounts that were challenged at the hearing by SCCTA and the Consumer Advocate primarily consisted of the metallic cable accounts, the Consumer Advocate, in its Brief, takes issue with the Company's proposed depreciation rates for several other accounts, specifically the fiber cable accounts, the analog ESS account, and the digital ESS account. As to the fiber cable account, the Commission has searched the record of the proceeding and can find no indication of any discovery nor of any questions posed during the hearing by the Consumer Advocate concerning this account. The Commission, however, is of the opinion that the proposed rates of the Company which were agreed to by the Commission Staff at the three way meeting before the FCC Staff are reasonable projected lives for fiber cable and are supported by the Company's Hearing Exhibit No. 1. As to the analog ESS account and digital ESS account, testimony presented by witness Prophitt indicates that it is a matter of economics that digital ESS switches on an all digital network are much more economic than analog switches on an otherwise digital network. Mr. Prophitt stated that Southern Bell's network is rapidly becoming digital. This requires a large amount of analog-to-digital conversion devices which are very expensive. Digital has an economic advantage relative to analog. More digital switches are being manufactured, therefore they are cheaper and will replace on a rapid basis the more expensive analog switches. Tr., Vol. I, p. 46. As to the Consumer Advocate's objection the Company's proposed reduction in the

projected life of digital ESS from 20 to 17 years, again, a search of the record does not reveal any objection or questioning by the Consumer Advocate. While the Commission realizes that the Company has the burden of proof to support its proposal, the Company has not been afforded an opportunity to respond by rebuttal or otherwise to issues raised by the Consumer Advocate in its Brief after the close of the hearing. However, the Commission finds that the Company's Hearing Exhibit No. 1, which contains the Company's depreciation study and the evidence of the record supports the reduction in the projected life of digital ESS from 20 to 17 years and finds that such is appropriate. Therefore, the Commission finds that as to all accounts other than the three metallic cable accounts mentioned herein, that the Company's proposal is reasonable and should be adopted in regard to those accounts.

Additionally, approximately 40% of the annual intrastate depreciation increase proposed by Southern Bell and tentatively agreed to by the Commission Staff represents an amortization of Southern Bell's net plant investment in its step-by-step and cross bar accounts over the next 3 years. The last step-by-step and cross bar central office switches were retired in 1989, however, significant investment still remains in Southern Bell's South Carolina rate base. Tr., Vol. I, p. 24. Removal of this investment from rate base, according to witness Prophitt makes the amortizations proposed by Southern Bell necessary. The Commission, based upon the testimony of witness Prophitt,

considers the proposed amortizations to be reasonable and are hereby approved.

4. That the proposed rates will help Southern Bell meet its need for adequate capital recovery and allow it to maintain a telecommunications network in South Carolina "second to none". Tr., Vol. I, pp. 20, 24.

5. That the depreciation rates approved herein will result in annual increase in Southern Bell's intrastate depreciation expense of \$14.8 million which is \$16 million less than the amount proposed by Southern Bell in April, 1989. Tr., Vol. I, p. 24.

6. That by approving these depreciation rates, the Commission has not approved any cable modernization plan of Southern Bell, including fiber to the home for the purpose of providing video transport. The Commission has based its decision upon the evidence of the record concerning the remaining useful life of Southern Bell plant and facilities. As stated by witness Prophitt, "[t]he Commission is certainly able and has the tools to protect the ratepayers of South Carolina in the future from any uneconomic plant investments. If [Southern Bell] invest[s] in plant that is not in the ratepayers interest, [the Commission] certainly [has] within their power the ability to judge that to be imprudent and, therefore, not part and parcel of the rate base." Tr., Vol. I, p. 105. The Commission will consider the investment decisions of Southern Bell at the appropriate time and not in the context of a depreciation proceeding. To prescribe the appropriate depreciation rates herein, it was not incumbent upon

the Commission to determine whether or not Southern Bell's plans, if any, to modernize its plant by replacing copper with fiber to the home is justified or prudent. Therefore, it should not be presumed from this Order that the Commission has approved any alleged plan of Southern Bell's for plant modernization. The Commission's decision herein is limited to the approval of the appropriate depreciation rates and amortization schedules of Southern Bell.

7. That the Commission finds that the depreciation study and the methodologies employed therein by Southern Bell and its consultants are consistent with accepted economic and forecasting principals, are based upon the Company's actual deployment plan and are appropriate for use in this proceeding for depreciation purposes only.

The economic lives proposed by Southern Bell are based upon the Company's actual short-term, mid-term and long-term network deployment plan. Tr., Vol. I. p. 27. These plans take into consideration the effects technological advancements are having upon Southern Bell's existing assets, and in particular the three metallic cable accounts. Tr., Vol. I, pp. 27-34. Witness Prophitt explained that fiber optic facilities are having a tremendous impact on the lives of Southern Bell's copper cables. As witness Prophitt explained, fiber optic cable is the most economic means of providing telephone service in the interoffice trunking and feeder portions of Southern Bell's outside plant network. SCCTA witness Gillett agreed with this assessment. Tr.,

Vol. II, pp. 117-118.

According to witness Prophitt and as demonstrated in Exhibit 8 of Hearing Exhibit No. 1, the "avalanche" effect creates a situation where it becomes more economic because of new technology to put in new plant and retire the old. From that point on, the economics continually improve for the new technology relative to the old, causing the old plant to retire very rapidly. This rapid retirement creates the avalanche effect. Tr., Vol. I, p. 77. Southern Bell's depreciation study takes into account this future avalanche effect to determine the appropriate economic life for its metallic cable accounts. If such was not done, according to witness Prophitt, a very gradual retirement rate which would be calculated by looking at the past would result in a service life and a depreciation rate that is too low. This would create a large reserve deficiency. Tr., Vol. I, p. 78. According to Mr. Prophitt, Southern Bell's forecasting techniques are based upon established forecasting principals. Tr., Vol. I, pp. 80-81. As emphasized by witness Prophitt, Southern Bell's filing in this case does not depend on the expectation that in the future, fiber will make available the contribution from services other than POTS. The lives that the Company are proposing in this case are longer than those than even POTS would support. Tr., Vol. I, pp. 82-83.

Witness Prophitt testified that as fiber optic system costs continued to decline, fiber optics will also become the most economical means of providing telephone service in the

distribution portion of Southern Bell's network. This is expected to occur in the early to mid 90's, as shown by witness Prophitt's cost curve and Fisher-Pry analyses in Exhibit 1. As emphasized by Southern Bell, it will not deploy fiber optic facilities until they become the most economical means of providing telephone service. Although, fiber optics have already crossed over and become the economical choice for both interoffice trunking and feeder cable routes, they will not be deployed in the distribution portion of the network until they are more economical than comparable copper facilities. Tr., Vol. I, pp. 100-102, 115, 121.

Southern Bell's projection that fiber will become more economic than copper in the distribution portion of Southern Bell's network in the near future is supported by recent fiber optics facility costs trends as shown in Hearing Exhibit No. 1. The sub-exhibits contained in Exhibit 1 show fiber optic costs continuing to decline 10 to 15 percent per year. This projection is further supported by a certain technology life cycle analyses performed by Southern Bell and Technologies Futures, Inc. (TFI). Tr., Vol. I, pp. 32-34. These technology life cycle analyses, known as Fisher-Pry analyses, are based upon industrial experience which indicates that over 98% of all technological substitutions follow what is known as "S-Curve" pattern. Both Southern Bell and TFI, conducting independent Fisher-Pry analyses, determined that fiber will have totally replaced copper throughout the telephone network by year 2010 or 2011. Tr., Vol. I, pp. 32-34.

The testimony presented by Southern Bell shows that the projected lives of 20, 21, and 21 years that Southern Bell has proposed for its aerial, underground and buried metallic cable facilities, respectively, are conservative. Southern Bell's depreciation study supports shorter lives than that proposed.

The three SCCTA witnesses took the position that the use of fiber optic facilities in Southern Bell's outside plant network, in particular, the distribution portion of the network, was not economical for the provision of telephone service and, therefore, fiber optics were not affecting the lives of Southern Bell's existing copper plant as purported by Southern Bell.

Witness Gillett asserted numerous technical problems which allegedly would prohibit the placement of fiber optics facilities all the way to a customer's home. Mr. Gillett agreed that technology will continue to advance. Tr., Vol. II, p. 118. Mr. Gillett also agreed that fiber optics is the appropriate facility for connecting central offices, as well as in the feeder network. Tr., Vol. II, p. 117. This indicates to the Commission that Mr. Gillett's testimony supports the concept that fiber will continue to move farther out into the local exchange network.

Witness Montgomery, of the SCCTA, found fault with Southern Bell's depreciation study. Mr. Montgomery testified that the analyses for the three cable accounts does not have any basis in actual plant mortality statistics and cannot be traced to the depreciation reserve and retirement data that the Company maintains. Tr., Vol. II, p. 146. While Mr. Montgomery took issue

with the filing by Southern Bell and in his estimation declared the study to be contain speculative assessments of future conditions. Tr., Vol. II, p. 148. Mr. Montgomery offered no alternative study nor supported any other depreciation rate.


8. That the proposed "cost effectiveness test" is not appropriate for South Carolina and could create an unanticipated reserve deficiency if employed. SCCTA witness Cresse urged the Commission to adopt a "cost effectiveness test" used by the Florida Public Service Commission while he was Chairman of said Commission in 1983. Tr., Vol. III, p. 14. According to Mr. Cresse, the use of this "cost effectiveness test" will ensure proper depreciation rates. However, the test employed by the Florida Public Service Commission created a large reserve deficiency for the three metallic cable accounts. Tr., Vol. II, p. 28. The Commission finds that the proposed "cost effectiveness test" supported by witness Cresse would not be appropriate in South Carolina. The 1986 results of the Florida Commission's use of the "cost effectiveness test" in 1983 show that fiber optics is rapidly replacing copper or at least is being deployed at a more rapid rate than the Florida Commission had anticipated. The Commission finds these results support the proposed rates of Southern Bell in this filing.

9. Therefore, based upon the foregoing, the Commission finds that the depreciation rates and amortization schedules proposed by Southern Bell filed as part of Hearing Exhibit No. 1, and as reflected in Appendix A, attached hereto and incorporated

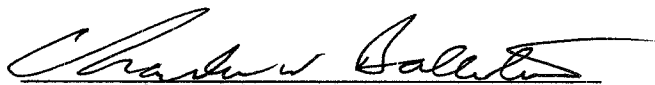
by reference, are reasonable and appropriate and are hereby
approved effective January 1, 1990.

IT IS SO ORDERED.

BY ORDER OF THE COMMISSION:


Chairman

ATTEST:


Executive Director

(SEAL)

<u>Depreciation Rates</u>		
	<u>Current</u>	<u>Approved Effective 1-1-90</u>
2112 Motor Vehicles	7.4	10.1
2114-16 Special Veh. & Wk. Equip	8.7	7.9
2121 Buildings	2.4	2.3
2122 Furniture	6.7	7.3
2123 Office Equip.	6.1	10.7
2124 Computers	11.8	11.1
2211 ESS-Analog	6.8	9.0
2212 ESS-Digital	7.3	6.3
2215.1 S-X-S	24.3	**
2215.2 X-Bar	38.1	**
2220.1 Operator Systems-X Bar	7.3	##
2220.2 Operator Systems-Digital	7.3	10.8
2231 Radio Systems	16.6	10.2
2232.1 Circuit-DDS	10.6	12.1
2232.2 Circuit-Other	9.7	12.2
2311 Station Apparatus	15.8	2.5
2341 Large PBX	15.8	16.8
2351 Public Telephone	13.2	2.8
2362 Other Terminal Equip.	15.8	8.0
2411 Poles	5.8	4.7
2421.1 Aerial Cable-Metal	5.6	5.9
2421.2 -Fiber	6.9	6.3
2422.1 Undergd. Cable-Metal	3.9	6.2
2422.2 -Fiber	5.1	4.8
2423.1 Buried Cable-Metalic	5.3	5.9
2423.2 -Fiber	5.8	5.7
2424 Submarine Cable	4.5	4.8
2426 Intra-Bldg. Cable	5.6	6.9
2431 Aerial Wire	47.3	0.0
2441 Conduit Systems	1.6	1.8

** - Three (3) year amortization of the net book balance for this plant account.

- Two (2) year amortization of the net book balance for this plant account.